PW01-158 - **DIFFERENTIALS EFFECTS OF OLANZAPINE AND RISPERIDONE ON PLASMA ADIPONECTIN LEVELS OVER TIME: A PROSPECTIVE STUDY**

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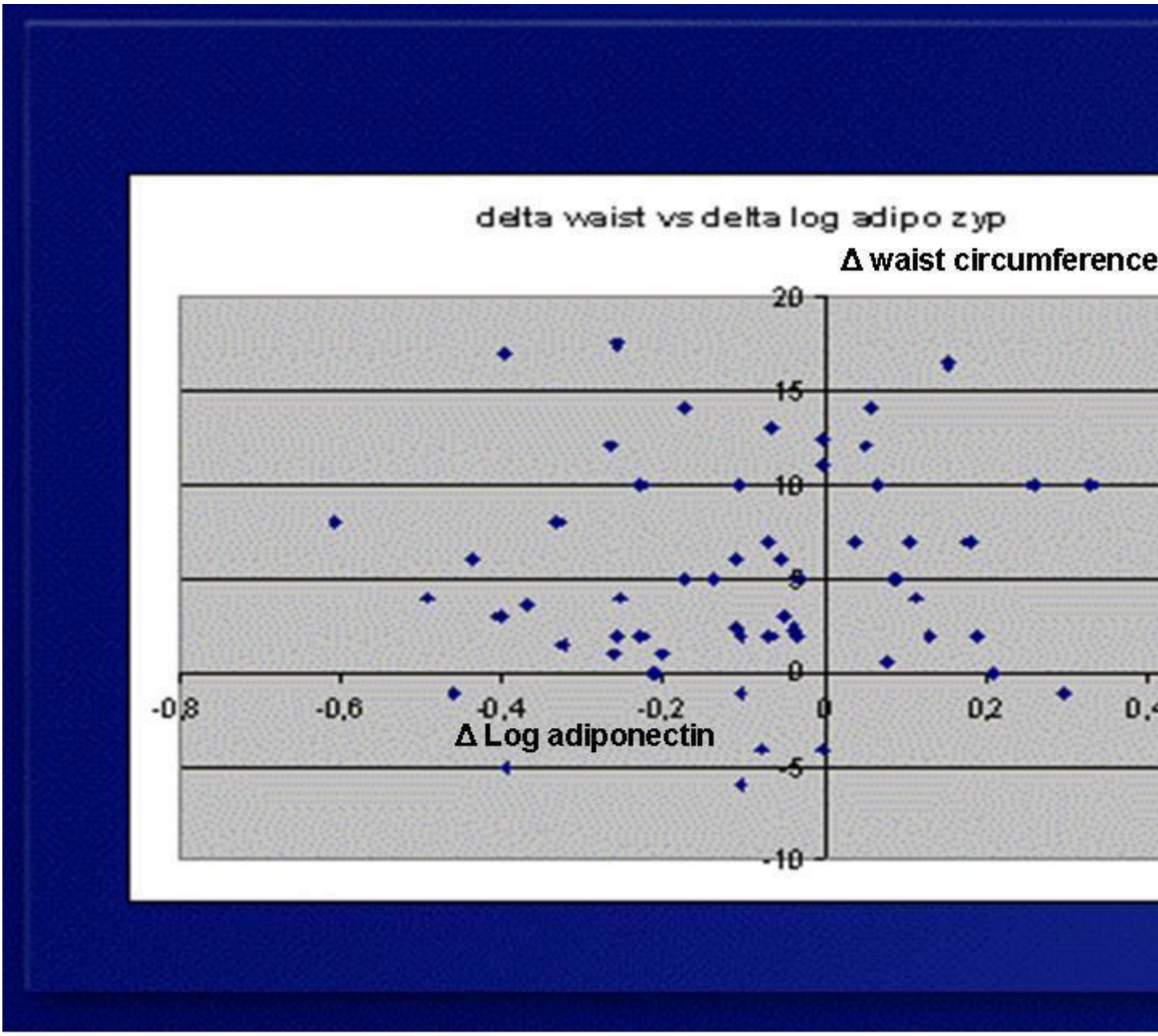
Introduction: Recent research has shown that adiponectin levels in patients with schizophrenia vary similar to the general population. Moreover, antipsychotic medication may influence adiponectin levels, independent of metabolic parameters. We hypothesise different antipsychotics might vary in their effect on adiponectin levels independent of BMI and metabolic syndrome (MetS) status.

Methods: 113 patients, with similar baseline demographic and metabolic characteristics, received either risperidone (n=54) or olanzapine (n=59). They were followed prospectively for 12 weeks. Adiponectin levels as well as general metabolic parameters were measured at baseline, 6 weeks and 12 weeks.

Results: We observed a significant treatment by time interaction, showing an adiponectin increase in the risperidone treated patients and an adiponectin decrease in olanzapine treated patients. This effect was independent of BMI and the presence/absence of the metabolic syndrome. There was a significant association between fall in adiponectin and increase in waist circumference in the Olanzapine treated group (Figure 1).There was no change in HOMA-IR as a measure of insulin resistance in either group.



Increase in waist circumference (delta waist) was strong
with fall in serum adiponectin level (delta log adipo)

[Figure 1]

Conclusion: We observed a differential effect of antipsychotic treatment (risperidone vs olanzapine) on adiponectin levels over time,independent of BMI (and MetS) suggesting an effect of olanzapine on

adipose tissues, similar to what has been observed in animals models. The effects on adiponectin levels may partly explain the increased rates of obesity with Olanzapine.